REMARKS

Claims 1 through 32 continue to be in the case.

1. The information disclosure statement filed January 30, 2002 fails to comply with 37 CFR 1.98(x)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Thus copies of the WIPO and German references should be submitted since no copies have to date been received. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

The applicant has filed on June 2, 2003 copies of the following documents:

US patent 3,818,273

WO 92/02066

DE 3804250

with the United States Patent and Trademark Office.

2. The title of the invention still is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. It is recommended that key concepts of the invention, such as those stated in the brief description of the invention, be included in the title.

In response, applicant proposes the following new title:

SAFETY DEVICE FOR LIMITING CURRENT AND VOLTAGE SUPPLIED TO AN ELECTRICAL CONSUMER INCLUDING A VOLTAGE AND CURRENT LIMITING DEVICE AND A PROTECTIVE CIRCUIT.

3. The disclosure is objected to because of the following informalities that were discussed during the February 4, 2003 telephone discussion.

On page 20 of the specification a short description of newly submitted figure 8 is required.

Throughout the specification terms like "line 8 -- 9 -- 16", "knot 18", "further second", "and/or", and "knot 9" make little to no sense at all.

Appropriate correction is required.

Applicant is correcting the objectionable language in the present amendment.

The replacement on page 16, second paragraph and third paragraph bridging to page 17 is based on the following considerations:

The second paragraph on page 16 of the instant specification does not end right and the third paragraph on page 16 of the instant application does not begin right. Investigation of the matter showed that apparently through error the German language version of the Substituted sheets of the Annexes to the International preliminary Examination Report do not contain on pag7neu, five lines from the bottom of the page 7neu about one page of the original PCT Application, which corresponds approximately to page 13, last paragraph to page 16, first paragraph of the English language translation of the original PCT application. The present amendment inserts page 13, last paragraph to page 16, first paragraph of the English language translation of the original PCT application into page 16 of the present specification from the Annexes of the International preliminary Examination Report.

4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on February 10, 2003 have been approved. A proper drawing correction or corrected drawings

are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

As the proposed drawing correction and/or the proposed substitute sheets of drawings, filed on February 10, 2003 have been approved, applicant does not understand what proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. Clarification is respectfully requested.

5. The drawings remain objected to because in figures 3-8 fuse F1 is illustrated utilizing a symbol remarkably like the symbol utilized to illustrate resistors R1-R7. It is suggested that fuse Fl be illustrated with a symbol that resembles a single cycle of a sinusoidal waveform (~~) and

that resistors R1-R7 be illustrated with a symbol that resembles a triangular wave form (^^^) like was done in figures 1 and 2.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

A proposed drawing correction is attached to this response.

6. Claims 1-32 stand objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-32 are vague and confusing because as agreed during the February 4, 2003 telephone conversation the terms "first Zeller diode", "second Zeller diode", "third Zeller diode", and "fourth Zeller diode" as utilized tends to confuse instead of clarify the recitations. Also as agreed during the February 4, 2003 telephone conversation the terms "sensor Zeiler diode", "protection Zener diode", "limiting Zener diode", and "gate control Zener diode" should instead be utilized.

Applicant is accepting the proposal and corresponding changes have been made in the claims.

Applicant is expanding on the proposal by providing for similar rational nomenclature for the resistors as follows:
R1 series resistor

R2 feedback current reducing resistor

R3 feedback resistor

R4 control voltage feeding resistor

R5 sensor resistor

Claim 12 is vague and confusing because ", for example a key," in lines 2-3 is extraneous matter as agreed during the February 4, 2003 telephone conversation.

Claim 12 is amended to overcome the rejection.

Newly submitted claims 16-32 are vague and confusing because they are replete with the same exact errors that the examiner identified in the originally filed claims 1-14. Similar corrections that applicant made to claims 1-14 are now also required to claims 16-32 as agreed during the February 4, 2003 telephone conversation.

Claims 16 to 32 are extensively amended in this response in order to overcome the rejection.

It should be noted that upon allowance all reference characters in parenthesis in the claims must be deleted.

The present amendment removes all reference characters from the claims in the present amendment.

Appropriate correction of all of the above is required.

The present amendment attempts to furnish appropriate correction to all of the above.

7. Claims 1-32 would be allowable if rewritten or amended to overcome the objections set forth above in this Office action.

Applicant appreciates sincerely the indication of allowable subject matter.

Reconsideration of all outstanding rejections is respectfully requested.

All claims as presently submitted are deemed to be in form for allowance and an early notice of allowance is earnestly solicited.

Respectfully submitted,

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IN THE TRANSLATION OF THE ANNEXES OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT FURNISHING THE SPECIFICATION:

MARKED UP VERSION OF THE AMENDED SPECIFICATION

(Version with marking to show changes made)

Please replace on page 16, second paragraph and third paragraph bridging to page 17 with the following:

-- The safety device can for example exhibit a feedback resistor of such size that a return current regulated to a fraction of the load current to be limited upon operation with nominal voltage.

The safety device then does not switch off in case of input nominal voltage and occurring over current; upon presence of an oval voltage the feedback current increases by the ratio of the input voltage to the input nominal voltage UE:UENOM. Now the voltage to U9-11 of the safety device or of the electrical apparatus to be protected is switched off or, respectively, separated. The safety device switches without further help again

automatically on or, respectively, assumes the state of the regulated down reverse current when the input voltage UE of the safety barrier is reduced to its input nominal value UENOM, whereby an automatic adaptation to the supply conditions results.

It is thereby possible to operate the safety device at the grids, which exhibit over voltages over time periods, wherein a ban as long as the over voltage is sustained, the connected circuit to be protected is protected against this over voltage, without that a reset is required. The employment of sensitive apparatuses in connection with the invention safety barrier is thereby possible in very unstable power grids.

Similarly certain properties of the over current or over voltage limitation can be set with the feedback resistor or with the control or regulating circuit. A corresponding evaluation electronics can thereby generate preselected characteristic curves for regulating down or characteristic curves for switching off, whereby a switching off delay can be programmed for example. An interlocking of Zener barriers and such limit circuits is also possible.

An electronics to be protected has in general a fixed current receiving region and does not require additional protection against over currents. Here the circuit with voltage detector (figure 1) is offered. A short circuit on the connection lines is possible in case of open connections between safety barrier or, respectively, protective circuit and electronics to be protected or, respectively load. Here advantageously the circuit with current sensor and over current limitation (figure 2) is employed.

A Zener diode for protecting the gate source leg is placed between gate and source of the switching and/or regulating transistor and parallel to the gate and source of the switching and/or regulating transistor, where input voltages are to be switched off in applications where such input voltages are larger than the permissible voltage between gate and source of the switching and/or regulating transistor. Alternatively a Zener diode is connected in series to the resistor R4 for reducing the gate control voltage. Depending on this elected field effect transistor, these Zener diodes protect against too large control voltages at the gate. The Zener diodes can also be an integral component of the switching and/or regulating transistor. --

Please substitute page 17, third paragraph, with the following paragraph:

-- Furthermore a bipolar transistor can be employed as a switching and/or regulating transistor instead of the field effect transistor in the safety device or, respectively, protective circuit, wherein the collector emitter leg is disposed between the input connection and the output connection of the further protective circuit - relative to figure 1 at the ~~knot~~ junction point 9 - and wherein the base is connected to the common line through a resistor for feeding of the base control voltage. --

Please substitute the first paragraph on page 20 by the following paragraphs:

-- Figure 7 voltage courses U9,11 and UE upon triggering of the safety barrier according to figure 1 at different values of the feedback resistor,

Figure 8 is a view of a circuit diagram similar to Fig. 3 and additionally featuring a reset.--

Please substitute page 21, first paragraph, with the following paragraph:

-- The safety device 19 surrounded by dashed lines comprises in principle a safety fuse F1 disposed ~~in a line 8~~ between junction point 9 [[--]] and junction point 16, wherein the safety fuse F1 is preferably a fusible fuse, as well as a voltage limiting device referring ~~from a knot~~ to a junction point 18 ~~of the line 8~~ disposed between junction point 9 [[--]] and junction point 16 to the common line 12, which voltage limiting device is symbolized by the Zener diode D3; it is also possible to employ a plurality of diodes disposed in parallel or other known barriers such as Zener barriers. A current limiting device follows to the connection ~~knot~~ junction point 18 ~~in the line 8~~ between the junction point 9 [[--]] and junction point 16 of the first voltage limiting device, wherein the voltage limiting device is disposed in series with the safety fuse F1 and is symbolized by the resistor R6. Preferably a resistor R7 can be connected in series to the fuse F1 in front of the connection ~~knot~~ junction point ~~in the line 8~~ between the junction point 9 [[--]] and junction point 16 of the first voltage limiting device. This voltage current limiting device is fully surrounded with edges in figure 1 and designated with the reference character 14. --

Please substitute page 21, second paragraph, bridging to page 22 with the following paragraph:

-- A ~~further~~ second protective circuit 20 is disposed in front of the safety fuse F1, wherein the device components of the ~~further~~ second protective circuit 20 are disposed in part parallel to the input connections 8,10 and partially in series with the safety fuse F1 ~~within the line 8~~ disposed between junction point 9 [[--]] and junction point 16 or also disposed between junction point 10 [[--]] and junction point 17 and which further second protective circuit 20 represents also a voltage ~~and/or~~ or current limiting circuit. The voltage ~~and/or~~ or current limiting circuit in principle comprises a field effect transistor Q1 as a switching and/or regulating transistor, wherein the field effect transistor Q1 is operated as a longitudinal control member in the figures 1,2 or 3 as a switch and/or regulating transistor. For this purpose the field effect transistor Q1 with its source drain leg is disposed longitudinally between the input connector junction point 8 and the ~~knot~~ junction point 9 and in front of the safety fuse F1, wherein the source is connected to the input connector 8 and the drain is connected to the knot 9. The gate G of the switching transistor Q1 is

connected to the common line 12 through a resistor R4 for feeding of the control voltage. --

IN THE CLAIMS:

MARKED UP VERSION OF THE AMENDED CLAIMS

(Version with marking to show changes made)

1. (currently amended) Safety device [[(19)]] for limiting of current and voltage of an electrical consumer [[(15)]] connected downstream to the safety device [[(19)]] with at least one input connector [[(8)]] and one output connector [[(16)]] as well as input connector and output connector ~~(10, 17)~~ of a common line [[(12)]] wherein the safety device [[(19)]] includes at least one voltage and current limiting device ~~(7,13, 14)~~ and comprising at least one protective device [[(F 1)]] as a fusible fuse, a voltage limiter device [[(D3)]] referenced to the common line [[(12)]], a current limiter device [[(R6)]] connected to the output of the voltage limiter device [[(D3)]] as well as a protective circuit [[(20)]], which protective circuit [[(20)]] is disposed upstream at the voltage and current limiting device ~~(7,13, 14)~~, wherein the protective circuit [[(20)]] includes a field effect transistor ([[Q1)]] as a switching and regulating transistor, wherein the source drain leg [[(S-D)]] of the field effect transistor [[(Ql)]] is disposed between the input connector [[(8)]] and the voltage and current limiting device ~~(7,13, 14)~~ and

wherein [[the]] a gate [[(G)]] of the switching and regulating transistor is connected to the common line [[(12)]] through a control voltage feeding resistor [[(R4)]] for feeding in [[the]] a control voltage of the field effect transistor [[(Q 1)]], wherein a second transistor [[(Q2)]] is connected to the input connector [[(8)]] and to the gate [[(G)]] of the switching and regulating transistor [[(Q 1)]], wherein the collector of the second transistor [[(Q23)]] is connected to the gate [[(G)]] of the switching and regulating transistor [[(Q 1)]] for influencing the control voltage of the switching and regulating transistor [[(Q 1)]], and wherein a feedback voltage ~~(U9,11)~~ is fed back to the base [[(Q22)]] of the second transistor [[(Q2)]] over a feedback resistor [[(R3)]] from [[the]] an output ~~(9,11)~~ of the protective circuit [[(20)]], wherein a voltage sensor circuit ~~(D1,RS)~~ is disposed between the base [[(Q22)]] of the second transistor [[(Q2)]] and the common line [[(12)]] for voltage detection.

2. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that ~~the longitudinal~~ a series resistor [[(R1)]] operates as a current sensor and the voltage sensor circuit ~~(D1,R5)~~ are present simultaneously both for voltage detection as well as for current limitation.

3. (currently amended) Safety device [[(19)]] according to claim 1 or 2 characterized in that the voltage sensor circuit ~~(D1,R5)~~ comprises a sensor ~~first~~ diode [[(D1)]] and a sensor resistor [[(R5)]] connected in series.

4. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that the feedback current is adjusted by way of the feedback resistor [[(R3)]] such that in case of ~~over-load~~ overload there results a regulating down of the load current to a minimum value and a switching off of the current in the voltage and current limiting device ~~(7,13, 14)~~ is performed only upon application of a supply voltage ~~(U8-10)~~ larger than [[the]] an input nominal voltage [[(UEN)]] and wherein an automatic switching on again is
given upon following lowering of the supply voltage [[(UE)]] to the input nominal voltage [[(UEN)]].

5. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that a feedback current reducing resistor [[(R2)]] is disposed between the base [[(Q22)]] of the second transistor [[(Q2)]] and [the] a source [[(S)]] of the switching and regulating transistor [[(Q 1)]] for reducing the feedback current.

6. (currently amended) Safety device [[(19)]] according to claim 1 or 2, characterized in that [[a]] the feedback voltage ~~(U9-11;UA)~~ of the feedback resistor [[(R3)]] is tappable both immediately after [[the]] a drain [[(D)]] of the switching and regulating transistor [[(Q 1)]] as well as at any arbitrary circuit point of [[the]] a current path between line points ~~(9, 16)~~ and that the feedback voltage ~~(U9-11;UA)~~ of the feedback resistor [[(R3)]] is fed back to the base [[(Q22)]] of the second transistor [[(Q2)]].

7. (currently amended) Safety device [[(19)]] according to claim 1 or 2 characterized in that a ~~second~~ protection Zener diode [[(D2)]] is disposed between the gate [[(G)]] and the source [[(S)]] of the switching and regulating transistor [[(Q 1)]] parallel to the gate [[(G)]] and to [[the]] a source [[(S)]] of the switching and regulating transistor [[(Q 1)]] for protecting the gate source leg [[(G-S)]].

8. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that ~~an additional second~~ a gate control Zener diode [[(D4)]] is connected in series with the control voltage feeding resistor [[(R4)]] for reducing the gate control voltage of the switching and regulating transistor [[(Q1)]].

9. (currently amended) Safety device [[(19)]] according to claim 7 characterized in that ~~the second~~ a protection Zener diode ~~[(D2)] (D2)~~ and ~~an additional third~~ a gate control Zener diode [[(D4)]] are integral components of the switching and regulating transistor [[(Q1)]].

10. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that the feedback resistor [[(R3)]] is replaced by a control circuit for adjusting the feedback current independent of the output voltage and of the supply voltage.

11. (currently amended) Safety device [[(19)]] according to claim 10 characterized in that the control circuit is a constant current circuit.

12. (currently amended) Safety device [[(19)]] according to claim 1 or 2 characterized in that the safety device [[(19)]] includes a reset device ~~, for example a key,~~ for switching on again in the protective circuit [[(20)]] after triggering of [[the]] a switching off of [[the]] a current in the voltage and current limiting device ~~(7,13, 14)~~.

13. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that the second transistor [[(Q2)]] is a field effect transistor.

14. (currently amended) Safety device [[(19)]] according to claim 1 characterized in that a bipolar transistor [[are]] is employed ~~instead of~~ as the ~~field effect~~ switching and regulating transistor.

15. (currently amended) A method for limiting of current and voltage of an electrical consumer [[(15)]] involving a safety device [[(19)]] comprising the steps:

furnishing the safety device [[(19)]] with at least a voltage and current limiting device ~~(7,13, 14)~~ and with at least one protective device [[(F 1)]] as a fusible fuse, with a voltage limiter device [[(D3)]] referenced to a common line [[(12)]], with a current limiter device [[(R6)]] connected to the output of the voltage limiter device [[(D3)]] as well as with a protective circuit [[(20)]], which protective circuit (20) is disposed upstream the voltage and current limiting device ~~(7,13, 14)~~, wherein the protective circuit [[(20)]] exhibits a field effect transistor [[(Q1)]] as a switching and regulating transistor, wherein the source drain leg [[(S-D)]] of the ~~field effect~~

switching and regulating transistor [[(Ql)]] is disposed between an input connector [[(8)]] and the voltage and current limiting device ~~(7,13, 14)~~;

connecting [[the]] a gate of the switching and regulating transistor [[(G)]] to [[the]] a common line [[(12)]] through a control voltage feeding resistor [[(R4)]];

connecting a second transistor [[(Q2)]] to the input connector [[(8)]] and to the gate [[(G)]] of the switching and regulating transistor [[(Q 1)]], wherein [[the]] a collector of the second transistor [[(Q23)]] is connected to [[the]] a gate [[(G)]] of the switching and regulating transistor [[(Q 1)]] for influencing [[the]] a control voltage of the switching and regulating transistor [[(Q 1)]], and

disposing a voltage sensor circuit ~~(D1,RS)~~ between [[the]] a base [[(Q22)]] of the second transistor [[(Q2)]] and the common line [[(12)]] for voltage detection;

connecting [[the]] an electrical consumer downstream to the safety device [[(19)]] with at least one input connector [[(8)]] and one output connector [[(16)]] as well as input connector and output connector ~~(10, 17)~~ of the common line (12);

feeding in the control voltage of the ~~field effect~~ switching and regulating transistor [[(Q 1)]] from the gate [[(G)]] to the common line [[(12)]] through the control voltage feeding resistor [[(R4)]];

feeding a feedback voltage ~~(U9,11)~~ back to the base [[(Q22)]] of the second transistor [[(Q2)]] over a feedback resistor [[(R3)]] from [[the]] an output ~~(9,11)~~ of the protective circuit [[(20)]].

16. (currently amended) A safety barrier [[(19)]] for limiting the current and voltage of an electric consumer ~~(15), for example, a transducer,~~ connected after the safety barrier [[(19)]], said safety barrier [[(19)] having at least one input connection [[(8)]] and one output connection [[(16)]] as well as input and output connections ~~(10, 17)~~ of a shared line [[(12)]] ~~, for example, a ground conductor,~~ whereby the safety barrier [[(19)]] has at least one voltage and current limiter ~~(7, 13, 14) , such as a Zener barrier,~~ comprising at least one fuse ~~(F1) , such as a blow-out fase,~~ a voltage limiter [[(D3)]] linked to the shared line [[(12)]], a current limiter [[(R6)]] connected to the output of said voltage limiter [[(D3)]] as well as an additional protective circuit [[(20)]], which is arranged before the voltage and current limiter ~~(7, 13, 14)~~, characterized in that

the additional protective circuit [[(20)]] has a field effect transistor [[(Q1)]] as [[the]] a switching and/or regulating transistor whose source-drain link [[(S-D)]] is arranged between the input connection [[(8)]] and the voltage and current [[,]] limiter ~~(7, 13, 14)~~, and the gate of the switching and/or regulating transistor [[(G)]] for feeding [[the]] a control voltage of the [[field]] switching and/or regulating transistor [[(Q1)]] is connected via a control voltage feeding resistor [[(R4)]] to the shared line [[(12)]],

~~whereby~~ wherein a second transistor [[(Q2)]] is connected to the input connection [[(8)]] and to the gate [[(G)]] of the switching and/or regulating transistor (Q 1),

~~whereby~~ wherein [[the]] a collector [[($Q2_3$)]] of the second transistor [[(Q2)]], in order to influence the control voltage of the switching and/or regulating transistor

[[(Q1)]], is connected to the gate [[(G)]] thereof, and the feedback voltage ~~($U_{9,11}$)~~ after the switching and/or regulating transistor [[(Q1)] after its drain [[(D)]] is fed back between the outputs ~~(9, 11)~~ of the additional protective circuit [[(20)]] via [[the]] a feedback resistor [[(R3)]] to [[the]] a base [[($Q2_2$)]] of the second transistor [[(Q2)]], ~~whereby~~ wherein for purposes of voltage detection, there is a voltage sensing circuit ~~(D1, R5)~~ arranged between the base [[($Q2_2$)]] of the second transistor [[(Q2)]] and the shared line [[(12)]]

or

for purposes of current detection, there is a series resistor [[(R1)]] arranged between the input connection [[(8)]] and [[the]] a source [[(S)]] of the switching and/or regulating transistor [[(Q1)]] as a current sensor.

17. (currently amended) The safety barrier according to Claim 16, characterized in that,

pertaining to the additional protective circuit, concurrently for voltage detection as well as for current limitation, the series resistor [[(R1)]] is present in the form of a current sensor and the voltage sensing circuit ~~(D1, R5)~~ is present in the form of a voltage detector.

18. (currently amended) The safety barrier according to Claim 16, characterized in that

the voltage sensing circuit ~~(D1, R5)~~ comprises a sensor Zener or trigger diode [[(D1)]] and a sensor resistor [[(R5)]], which are connected in series.

19. (currently amended) The safety barrier according to Claim 16, characterized in that

[the]] a feedback current is set by means of the feedback resistor [[(R 3)]] or by means of the switching or regulating circuit in such a way that, in case of overload, [[the]] a load current is cut back to a minimum value and only after [[the]] an application of a supply voltage ~~(U_{8-10})~~ that is greater than [[the]] a rated input voltage [[(U_{EN})]] is the load current switched off in the

voltage and current limiter ~~(7, 13, 14)~~ and autonomously switched back on at the time of the subsequent lowering of the supply voltage [[(U_E)]] to the rated input voltage [[(U_{EN})]].

20. (currently amended) The safety barrier according to Claim 16, characterized in that,

in order to reduce the feedback current in the additional protective circuit, a <u>feedback current reducing</u> resistor [[(R2)]] is installed between the base [[($Q2_2$)]] of the secondtransistor [[(Q2)]] and the source [[(S)]] of the switching and regulating transistor [[(Ql)]].

21. (currently amended) The safety barrier according to Claim 16, characterized in that the reference voltage or feedback voltage ~~(U_{9-11},U_A)~~ of the feedback resistor [[(R3)]] can be tapped directly after the drain [[(D)]] of the switching and/or regulating transistor [[(Q1)]] as well as at any desired circuit point of the current path ~~between the line points 9 and 16~~ <u>through the voltage and current limiter</u>, and is fed back to the base [[($Q2_2$)]] of the second transistor [[(Q2)]].

22. (currently amended) The safety barrier according to Class 16, characterized in that, parallel to the gate [[(G)]] and the source [[(S)]] of the switching and/or regulating transistor [[(Q1)]], a protection Zener diode [[(D2)]] is applied between said gate [[(G)]] and the source [[(S)]] in order to protect the gate-source link [[(G-S)]].

23. (currently amended) The safety barrier according to Class 16, characterized in that, in order to reduce [[the]] a gate drive voltage of the switching and/or regulating transistor [[(Q1)]], a gate control Zener diode [[(D4)]] is connected [[with]] to the control voltage feeding resistor [[(R4)]].

24. (currently amended) The safety barrier according to Claim 22, characterized in that

~~the sec.~~ a protection Zener ~~diodes D2~~ diode and/or a gate contolZener diode [[D4]] are integral components of the switching and/or regulating transistor [[(Q1)]].

25. (currently amended) The safety barrier according to Claim 16, characterized in that,

in order to set [[the]] a feedback current, irrespective of [[the]] an output or supply voltage, the feedback resistor [[(R3)]] is replaced by a switching or regulating circuit.

26. (previously presented) The safety barrier according to Claim 25, characterized in that

the switching or regulating circuit is a constant current circuit.

27. (currently amended) The safety barrier according to Claim 16, characterized in that

said safety barrier has a reset means ~~, for example, a button,~~ for switching the additional protective circuit back on after [[the]] a load current has been switched off in the voltage and current limiter ~~(7, 13, 14)~~.

28. (currently amended) The safety barrier according to Claim 16, characterized in that

the second transistor [[(Q2)]] is an electronic relay or field effect transistor or thyristor.

29. (previously presented) The safety barrier according to Claim 16, characterized in that

a bipolar transistor or electronic relay is used instead of the field effect transistor.

30. (currently amended) Electrical protective circuit for limiting of current and voltage, as safety barrier or other circuit to be protected, for protecting an electrical consumer [[(15)]], with at least one

input connection [[(8)]] and an output connection [[(9)]] as well as input connection and output connection ~~(10, 11)~~ of a common line ~~(12) , for example a ground line,~~ wherein a voltage and current limiting device is disposed within the protective circuit, wherein the voltage and current limiting device includes a field effect transistor [[(Q1)]] as a switching and/or regulating transistor characterized in that

~~the source-drain-legged~~ a source-drain-leg [[(S-D)]] of the ~~field effect~~ switching and/or regulating transistor [[(Q1)]] is disposed between [[the]] an input connector and [[the]] an output connector [[(8,9)]] and [[the]] a gate [[(G)]] of the switching and/or regulating transistor is connected to the common line [[(12)]] through a resistor [[(R4)]] for feeding in ~~off the~~ a

control voltage of the ~~field effect~~ switching and/or regulating transistor [[(Q1)]] and wherein a second transistor [[(Q2)]] is connected to the input connector [[(8)]] and to the gate [[(G)]] of the switching and/or regulating transistor [[(Q1)]], wherein [[the]] a collector [[(Q23)]] of the second transistor [[(Q2)]] is connected to the gate [[(G)]] of the switching and/or regulating transistor [[(Q1)]] for influencing [[the]] a control voltage of the switching and/or regulating transistor [[(Q1)]] and wherein the output voltage after the source-drain-leg ~~source-drain-legged (S-D)~~ of the switching and/or regulating transistor [[(Q1)]] is fed back at the output connector [[(9)]] to [[the]] a base [[(Q22)]] of the second transistor [[(Q2)]] through a feedback resistor [[(R3)]], wherein a sensor Zener diode [[(DI)]] is disposed between the base [[(Q22)]] of the second transistor [[(Q2)]] and the common line [[(12)]]

or

a series resistor [[(RI)]] is disposed as a current sensor between the input connector [[(8)]] and [[the]] a source [[(S)]] of the switching and/or regulating transistor [[(21)]] for current capturing.

31. (currently amended) Electrical protective circuit for limiting of current and voltage, as safety barrier or other circuit to be protected, for protecting an electrical consumer [[(15)]], with at least one

input connection [[(8)]] and an output connection [[(9)]] as well as input connection and output connection ~~(10, 11)~~ of a common line ~~(12) , for example a ground line,~~ wherein a voltage and current limiting device is disposed within the protective circuit, wherein the voltage and current limiting device includes a field effect transistor [[(Q1)]] as a switching and/or regulating transistor characterized in that

~~the source-drain-legged (S-D)~~ a source-drain-leg of the ~~field effect~~ switching and/or regulating transistor [[(Q1)]] is disposed between the input connector and the output connector [[(8,9)]] and [[the]] a gate [[(G)]] of the switching and/or regulating transistor is connected to the common line [[(12)]] through a control voltage feeding resistor [[(R4)]] for feeding in ~~off the~~ a control voltage of the ~~field effect~~ switching and/or regulating transistor [[(Q1)]] and wherein a second transistor [[(Q2)]] is connected to the input connector [[(8)]] and to the gate [[(G)]] of the switching and/or regulating transistor [[(Q1)]], wherein the collector [[(Q23)]] of the second transistor [[(Q2)]] is connected to the gate [[(G)]] of the switching and/or regulating transistor [[(Q1)]] for influencing the control voltage of the

switching and/or regulating transistor [[(Q1)]] and wherein [[the]] an output voltage after the ~~source-drain-legged (S-D)~~ source-drain-leg of the switching and/or regulating transistor [[(Q1)]] is fed back at the output connector [[(9)]] to [[the]] a base [[(Q22)]] of the second transistor [[(Q2)]] through a feedback resistor [[(R3)]], wherein a sensor Zener diode [[(DI)]] is disposed between the base [[(Q22)]] of the second transistor [[(Q2)]] and the common line [[(12)]]

32. (currently amended) Electrical protective circuit for limiting of current and voltage, as safety barrier or other circuit to be protected, for protecting an electrical consumer [[(15)]], with at least one

input connection [[(8)]] and an output connection [[(9)]] as well as input connection and output connection ~~(10, 11)~~ of a common line ~~(12) , for example a ground line,~~ wherein a voltage and current limiting device is disposed within the protective circuit, wherein the voltage and current limiting device includes a field effect transistor [[(Q1)]] as a switching and/or regulating transistor characterized in that

a series resistor [[(RI)]] is disposed as a current sensor between the input connector [[(8)]] and [[the]] a source [[(S)]] of the switching and/or regulating transistor [[(21)]] for current capturing.